Presentation to the

Upper Mississippi, Illinois & Missouri rivers association

by

Colonel Duane Gapinski, p.e.

Commander, rock island district
U.s. army corps of engineers

February 17, 2006

US Army Corps of Engineers®

U.S. Army Corps of Engineers

- The Corps' mission:
  - Water Resources Development
  - Environment
  - Infrastructure
  - Disasters
  - Warfighting

OUR MISSION
PEACE
WAR
SPECTRUM OF USACE OPERATIONS
Water Resources
Environment
Infra-structure
Disasters
Warfighting
Creating synergy between water resource development and environment
Restoring, managing and enhancing ecosystems, local and regional
Building and sustaining the critical facilities for military installations and the public
Responding to local, national and global disasters
Providing full spectrum engineering and contingency support

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Dual Roles

Chief of Engineers, Army Staff

★★★

Commander, U.S. Army Corps of Engineers

One Team: Relevant, Ready, Responsive and Reliable

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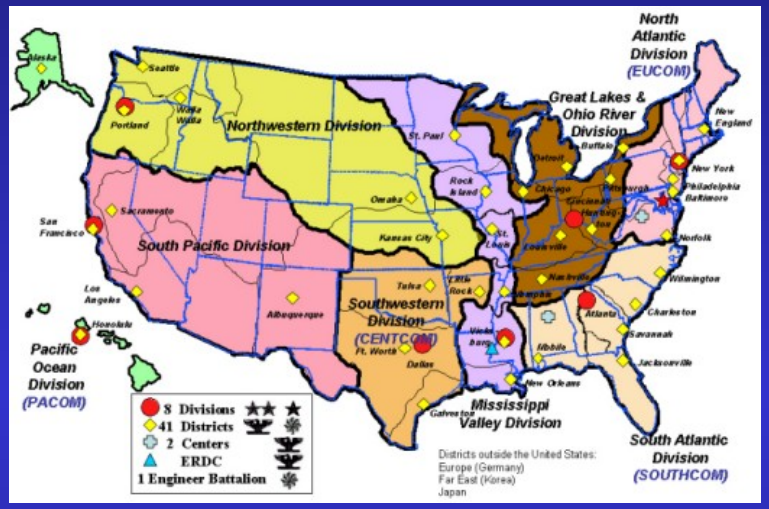
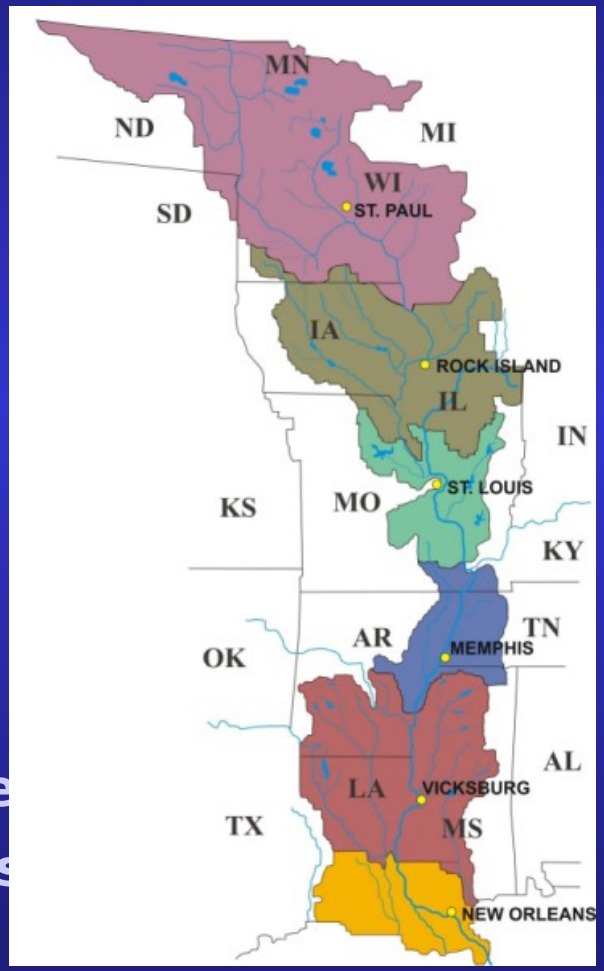
Mississippi Valley Division





- Six districts
- 5,000+ employees
- 370,000 square mile boundary, encompassing all or parts of 12 state
- 4,267 miles of commercial waterways
- 44 flood control lakes/reservoirs

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Mississippi River Commission

- Dual mission
- Established June 1879
- Authority to operate on entire Mississippi River

- Seven Presidentially appointed members
- Advisors to:
  Secretary of the Army
  and
  Chief of Engineers

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Rock Island District

- Primarily A Civil Works District
- 78,000 Square Miles
- Portions Of 5 States
- Operate 582 Miles Of 9-foot Navigation Channel
- 20 Locks And Dams
- 5 Flood Control Reservoirs

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Navigation & Ecosystem Sustainability Program Status

- Final Feasibility Report - September 2004
- Chief of Engineers Report – December 2004
- Administration's Position – Pending
- Congressional Action
  - House WRDA Bill – Passed
  - Senate WRDA Bill – Awaiting Vote
- Pre-Construction, Engineering & Design ($11.5 Million FY 2005 and $10 Million FY 2006)

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Program Elements

- Long Term, Dual Purpose Framework
- Authorization In Increments
- Small Scale Navigation Improvements
- Large Scale Navigation Improvements (New Locks)
- Developing & Testing Appointment Scheduling
- Specifically Identified Ecosystem Restoration Projects
- Programmatic Approach To Ecosystem Restoration Using Specifically Identified Measures
- Provisions For Continued Evaluation And Adaptation

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First Increment Ecosystem Restoration

$1.58 Billion

- Fish Passage @ Dams 4, 8, 22 & 26
- Changes In Water Control @ Dams 25 & 16
- Adaptive Implementation Of 225 Small Projects
  - Island Building
  - Water Level Management
  - Backwater/Side Channel Restoration
  - Wing Dam/Dike Alterations
  - Island Shoreline Protection
- 35,000 Acres Of Floodplain Restoration
- Continued Study & Monitoring

Ecosystem Restoration

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Active Projects

- Backwater Restoration – Upper Peoria Pool
- Side Channel Restoration -- Scheniman Chute
  Buffalo Island
- Wing Dam/Dike Alteration -- Pool 2 & Hercula
- Changes in Water Control – Dam 25
- Shoreline Protection – Multiple Sites
- Embankment Lowering – L/D 8
- Island Building – Pool 11
- Fish Passage – L/D 22 & Mel Price
- Floodplain Restoration -- Pierce County, WI;
  Root River, MN; Emiquon West, IL (USFW
- Water Level Management – Pools 5, 9, & 18

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First Increment Navigation Projects

$2.03 Billion

- Mooring Facilities @ Locks 12, 14, 18, 20, 22, 24 & LaGrange ($11M)
- Switchboats @ Locks 20 through 25 ($211M)
- 1200’ chambers at Locks 20 - 25, LaGrange & Peoria ($1.6B)
- Mitigation for Incremental Traffic Effects ($180M)
- Continued Study and Evaluation ($22M)

Navigation Improvements

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FY05-FY06 Activities

- Locks 22 & 25:
  - Initial Public Meetings
  - Hydraulic & Navigation Modeling
  - Geotechnical Subsurface Borings
  - Lock Structure Design Concepts
  - Initial Environmental Assessment
- LaGrange Limited Start - Lock Site Planning
- FY06 Continue Design, Revisit Construction Timeline, Coordination With Industry (Nav. Model & Features)

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Comprehensive Plan

Conclusions:

- **A Systemic Flood Damage Reduction Plan Can Be Developed**
- **The Levees Above Lock And Dam 19 At Keokuk, IA (Study Reaches 1 And 2) & The Levees On The Illinois River (Reach 4) Could Be Raised Without Causing More Than 1 Foot Of Rise In The Existing Water Surface Elevation.**
- **No Systemic Flood Damage Reduction Plan Was Identified With Positive National Economic Development (NED) Benefits. Implementing Systemic Flood Damage Reduction Would Result In Regional Economic Development (RED) Benefits Ranging From $22 Billion To $30 Billion.**
- **Existing Network Of Flood Damage Reduction Projects Has Prevented In Excess Of $83 Billion In Damage From Flooding During The Past Several Decades. Current**

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Comprehensive Plan

Conclusions (Continued):

- **Temporary Emergency Actions May Impact The Hydraulic Profile Depending Upon The Location And Extent.**
- **Estimated That By Implementing One Of The Systemic Plans Presented In The Report, Regional Economic Benefits Would Generate As Much As $5 In Increased Gross Regional Product For Each Dollar Invested. Based On Projections, If Upgraded Levee Protection Were Provided By Implementing Several Plans, Employment Would Increase By More Than 20,000 Jobs Annually In The Five-State Upper Mississippi Valley.**
- **Significant Systemic Ecosystem Restoration Project Opportunities Do Exist Within The Upper River Floodplain. These Opportunities Could Be Implemented If Flood Damage Reduction Measures Are Implemented.**

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Other Items of Interest

- Environmental Management Program
  - Pool 11 Islands (Dubuque,
  - Lake Odessa (Muscatine, I
- Operations & Maintenance
  - Peoria Hydraulics (Peoria,
  - Lock & Dam 11 (Dubuque,
  - Lock 19 (Keokuk, IA)
- Illinois River Basin Restoratio
  - Comprehensive Plan Public Meetings
  - Peoria Riverfront Upper Island
  - Plan & Design of 15 Critical Restoration Projects

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Points of Contact

Commander
COL Duane Gapinski
309-794-5249

Construction
Mark Hoague, Acting Chief
309-794-5480

Contracting
Rhonda Johanson, Chief
309-794-5312

Emergency Operations
Kent Stenmark, Chief
309-794-5325

Engineering
Denny Lundberg, Chief
309-794-5226

Operations
Kenn Shoemaker, Chief
309-794-5501

Planning, Programs & Project Management
Gary Loss, Chief
309-794-5260

Regulatory
Dan Johnson, Chief
309-794-5370

Rock Island District Website: www.mvr.usace.army.mil

One Team: Relevant, Ready, Responsive and Reliable